used in respect of the induced current to the other forms of electricity, a series of terms is obtained which would be accurate in form as the practice of nomenclature goes, true to science in fact, free from confusion, and particularly convenient in usage. The series would be (1) *faradaic electricity* or *faradism ;* and as respects the pathological and therapeutical application of the agency, *faradization* ; (2) *voltaic electricity* or *voltaism ; voltaization ;* (3) *franklinic electricity* or *franklinism ; franklinization.*"[1]

The study of a number of works, simultaneously, upon the subject of electricity, renders it evident that very much still remains to be accomplished in this field. We may picture to our minds a young practitioner, anxious to bestow especial attention to electricity, with reference to the practical employment of it. He would, as a preliminary, endeavour to render himself familiar with the investigations of others upon the subject, and the conclusions to which they had been led. While he would find that on some few points there was a similarity of opinion, on others he would observe a wide variance, and might come to the conviction that this variance depended occasionally on the circumstance that one writer was of sanguine, and another of doubting mood. Thus, " in wandering mazes lost," if not discouraged, he might, while retaining the general principles of the science, turn to the practical application of the art, and here he would very likely meet with a success in some cases absolutely brilliant—a success which would cause him hardly to wonder that Watson's cures by this agent in 1763, were confounded with witchcraft. Certainly the action of electricity, as a therapeutic agent, is in some cases exceptional and most satisfactory.

The future history of medical electricity is somewhat uncertain. Judging by the past, it will be progressive, and will continue to hold a firm place in therapeutics. There are certain results, such as the disintegration of calculi, the cure of aneurisms, the destruction of morbid growths, which have been cherished hopes, but which still remain "so near and yet so far." Knowing that the study of electrical phenomena occupies some of the best medical minds, that a retrospect shows a decided advance in the field; that notwithstanding the doubts and discouragements which have attended experimenters, there is an increased confidence in this agent, we have good reason to believe that the best results of electro-therapeutics are yet to be attained. F. A. B.

ART. XV.—*Third Annual Report of the State Board of Health of Massachusetts.* January, 1872. pp. 329. Boston, 1872.

NINE months ago we noticed at some length the Report immediately preceding the one above named, and commented upon the remarkably high character of the Board. Now, as then, it might safely be said that better appointments could hardly have been made by any scientific or philanthropic body than were here made by the State legislature. Only one member out of the seven composing the Board has been changed. Dr. Bowditch and Dr. Derby, as chairman and as secretary, continue in the offices they have so worthily magnified.

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[1] Practitioner, vol. i. p. 19, quoted in Dr. Tibbit's Translation of Duchenne.

We sketched, in the article referred to, the general plan pursued by the Board in collecting information. The system has been continued of appointing prominent physicians in all the towns, as sanitary correspondents. These, as heretofore, have not only presented general health reports, but have replied to particular queries addressed them by the secretary concerning special subjects of investigation. When any particular line of inquiry has seemed to require the skill of an expert, to elucidate the facts and draw from them the legitimate conclusions, the Board seem to have selected the men best fitted for the work.

The expenses of the Board, though five hundred dollars greater than for the preceding year, are still wonderfully small. Out of the standing appropriation of $5000, only $2850 has been expended. We believe the intelligent people of the old Bay State will feel that the noble volume of essays before us is alone worth much more than the entire expense. Indeed if the cost of this report be compared with that of many other State, municipal, and national documents, some startling contrasts may be found.

The general report on the "*Health of Towns*," made up principally from the correspondence received, contains few matters requiring especial notice. Additional facts of interest continue to be presented as to the connection between typhoid fever and local conditions, concerning which, it may be remembered a large and curious mass of information was given in the second report.

A very interesting account is given of extensive and unaccountable lead-poisoning occurring among the operatives in a gingham factory. It was only after several weeks of research that the source of the symptoms was discovered in a yarn dyed with chromate of lead. A needless amount of the pigment was used, in this instance; and the weavers habitually threaded their shuttles by sucking the yarn through the eye of the shuttle with their mouths. A hook was devised and ordered to be used for threading; and the dyeing ordered to be more carefully conducted. The epidemic speedily ceased. This gratifying instance of the triumph of medical science is creditable alike to the physician who made the investigation and to the Board through whose action such researches are undertaken, or encouraged, and made to contribute to the health and the enlightenment of the human race.

Another essay which may be regarded as a continuation or sequel of a paper in the second report is the one entitled "*Analysis of the Correspondence on the Use and Abuse of Intoxicating Drinks throughout the Globe, . . . or Intemperance as seen in the Light of Cosmic Law.*" The earlier paper consisted of a voluminous correspondence, with a brief summary of its teachings. The present essay, while giving some additional letters from foreign lands, consists principally of an elaborate presentation of the generalizations and inferences which Dr. Bowditch thinks legitimately derivable from the facts drawn from all races, climates, and conditions. Dr. Bowditch begins by stating that the use of stimulants is due to a natural and universal instinct. This once admitted, he argues that it is both idle and wrong to attempt to eradicate the craving. Like all natural tendencies it is implanted for wise purposes and is to be controlled, not exterminated. Attempts in the latter direction he thinks full of harm.

Taking up the results derived from his correspondents he proposes to consider intemperance in relation to isothermal lines, to race, to the kind of stimulant used, and to the prevalence or absence of grape-culture.

While these divisions of the subject are not very closely followed, they yet give an idea of the direction and tendency of the doctor's views. In warm countries he finds intemperance almost unknown, except among foreigners who may have brought with them the appetites of other races and other climates. In the high latitudes it is that intemperance becomes so terrible a curse.

Other things being equal, a country in which the grape thrives exhibits much less intemperance than one where it does not flourish.

National habits and customs, and to some extent legislation, have also important relations to temperance. The existence of open bars, the habit of "treating," and heavy duties on the pure light wines of France and Germany, are regarded as encouraging intemperance.

Progress in the temperance reform in our land is to be looked for, in the opinion of our writer, not from prohibitory legislation, but from extended cultivation of the grape, in popularizing the German beers, and German methods of drinking. For the open bars at which men pour down deep draughts of fiery and often poisonous spirits, he would strive to substitute the "Garden" or "Hall," where men sit with their wives and children and slowly sip a beverage scarcely so potent as tea.

Much may be done, Dr. B. thinks, in the way of creating a more wholesome public sentiment. Let the young be impressed with the degrading character of excess, rather than with the idea that all stimulants are necessarily evil. Strive to build up a distaste for the two prevalent American customs of "treating" and drinking at bars. In the training of children Dr. Bowditch regards two courses as almost equally evil—one by which without caution, or guidance, or control, they are allowed to acquire the habitual use of stimulants; and the other in which they are taught to look upon all stimulants as equally, wholly, and necessarily bad. In the latter case, when home restraints are removed, a dangerous reaction of feeling too often occurs; for, finding that facts have been misrepresented and that an innocent pleasure has been denied, young men may rush into the very excesses which their training was intended to render impossible. The greatest safety, he thinks, is to be found in a middle course.

It requires some boldness, at this day and in Massachusetts, to uphold views such as these. No one who knows the author of this paper, however, will for a moment doubt that his views are as sincerely held as they are vigorously expressed. Whether or not his ideas are all judicious, it is certain that the advocates of different views have shown so much bigotry and intolerance of opposition that it is well to have these more moderate opinions, and perhaps more practicable methods, so fully and ably set forth.

"*Arsenic in certain Green Colours,*" by Dr. F. W. Draper, is a paper of great value, prepared with much care and research. Two pigments in common use are named, as containing poisonous amounts of this drug. These are, Scheele's green, made of arsenite of copper; and Schweinfürt green, made of aceto-arsenite of copper. Practically, the two are often confounded, and called by each other's, or a common, name. The first contains 55 per cent., and the second 58 per cent., by weight, of arsenious acid, or "white arsenic." Beauty of tints, with ease and cheapness of production, have rendered this colour very popular. One English maker of paper-hangings stated, in 1860, that he used two tons of arsenic weekly. Dr. Draper goes on to point out the forms in which this deadly poison enters our homes and our workshops, and the evil effects resulting, often wholly without suspicion of their true cause.

In making the green leaves of the artificial flowers worn by ladies, the arsenical pigment is made into a paste with water and starch or gum arabic. This is spread upon, and rubbed into, cloth, much as the surgeon applies plaster of Paris to his moistened rollers. The more the cloth and pigment are manipulated the better the colour adheres. No mordant is used, to fix, by chemical action, the colour in the fibres of the cloth. The union is simply mechanical, as in the case of the plaster and muslin. When the material is dry, it is cut, stamped, moulded, and formed into the verdure that so beautifully imitates the natural setting of buds and flowers. In these processes much of the colour comes off as a fine dust. Still worse, in some cases the leaves are dipped in melted wax and the powdered pigment sprinkled on them from a dredging box. Of course, during this process the air becomes filled with floating atoms of deadly poison. While it may well be believed that the workers upon these dangerous ornaments are the persons most liable to suffer, we can well understand that dealers and even wearers may not be wholly safe. Investigations in England, France, and Germany reveal most deplorable facts as to the debility, nausea, diarrhœa, eruptions, ulcers, inflamed eyes, and other affections prevailing among the men and women engaged in this manufacture. Death has in some cases directly resulted. That it has not oftener followed is due to the usually gradual character of the arsenical poisoning, which obliges the sufferer to give up work, and remove from the cause of disease, before the recuperative forces are exhausted.

Green tarlatan, likewise owes its colour to the mechanical presence of the same deadly dye, insecurely fixed by starch or sizing. Some specimens have been found to contain nearly one-half their weight of pigment. A sample analyzed by Prof. Nichols, of the Mass. Institute of Technology, gave 8.21 grains of arsenious acid to the square foot, corresponding to three or four ounces, in a ball-dress. One dress which seriously poisoned its maker, in France, was found to hold eight ounces. Many instances are recorded where illness was traceable to working upon this fabric. The essayist suggests, too, that a portion of the responsibility for the notorious feeble health of dressmakers may very possibly rest upon these green materials.

There are comparatively few records of illness caused by merely wearing green leaves and tarlatans. These, too, may have been due to unusual susceptibility to the poison. But even if this be the fact, it should be gravely considered whether it be right in any way to encourage the manufacture of adornments so injurious to the makers.

One fact of importance to parents is that the wrappers of bonbons, and in rarer cases the confections themselves, are stained with the arsenical green. Green-painted toys, and the cakes of green in boxes of toy water-colours, are also very poisonous. It would seem proper that our local boards of health should inspect toys and sweetmeats with a view to preventing the use of dangerous colouring matters.

Green paint on our inner walls ought also to be carefully avoided, unless known to be non-arsenical.

Green papers are to be avoided or used with caution, unless we have ascertained their colour to be due to a harmless dye. Tickets, cards, and fancy papers are often picked up by young children and put at once to their lips. Wall-papers, like tarlatans, contain often very large amounts of arsenical green, very loosely held between and upon the fibres. Especially those with a rough, unglazed surface, part with their colour very easily. The essayist states a large number of instances where the most serious illness was clearly due to green wall-papers. The cause not being at first suspected, in many cases the victims, convalescent after removal for change of air, or after confinement in a non-poisonous bedroom, have suffered relapse on returning to the green-papered office or sitting-room. The cases given are very numerous, fully reported, and perfectly conclusive in proof of the frequency of serious disease resulting from green paper-hangings.

From many of these arsenical papers the colour easily comes off on the hands and the clothes. After brushing the walls it may be seen in the form of green dust lying on the furniture. A certain paper which had been on the walls for four years, and which had proved very injurious to health, was on that account removed. A certain measured portion being analyzed indicated the presence on the four walls of the room of no less than one-half a pound of white arsenic. Workmen applying and removing such papers have often suffered severe, though transient, illness.

Interleaved with the pages of this essay Dr. Draper shows us some specimens of arsenical papers. A glazed sample is said to contain 8.67 grains of arsenic to each square foot. One unglazed sample, having a tint so delicate as hardly at first to be recognized as green, gives 5.42 grains; another, a rich bright emerald, 29.32 grains.

Dr. Draper justly remarks that the importance of the facts and cases given is not affected by the possibility of some men living for years apparently unharmed by exposure to similar influence. Were extreme tolerance the rule, and such harmful effects as he narrates only the exception, he would still have shown the use of such wall-papers to be dangerous and reprehensible.

A valuable article by the secretary, Dr. Derby, treats of "*Mill Dams and other Water Obstructions,*" as affecting the public health. In the earlier years of the New England colonies the natural falls of hundreds of streams were used to move the village grist-mills. As manufactures multiply and water-power is more and more in demand, dams are built to heighten the fall. Of course this, to a variable extent, interferes with the drainage of the country above. A nearly level tract, formerly dry, may be converted into a swamp. The flow of the stream becomes sluggish. To provide against the long summer droughts, great ponds or reservoirs are formed in which water stagnates, and into which probably is thrown or poured all manner of filth from the houses of the operatives. When, under the burning suns of August and September, the natural flow ceases, the reservoir is drawn upon, and partly or wholly emptied. The morbific influence of the drying of such a surface in hot weather scarcely needs statement. In the elaborate paper on typhoid fever, forming so important a portion of the second report, noticed in our October number, it is stated that precisely this cause was assigned for local epidemics of the disease, in twenty-one out of one hundred and sixty-three towns, far exceeding any other single cause. It is recorded that in 1828 a dam was built across the Housatonic River, two miles south of the line between Massachusetts and Connecticut. This, affecting the height of water for ten miles above, was followed by so much intermittent that the people obtained legal order for its removal as a nuisance.

In this connection Dr. Derby expresses the conviction that sporadic intermittent is not now, as twenty-five years ago, wholly confined, in New England, to the Housatonic and southern Connecticut valleys. He, moreover, remarks that typhoid often seems modified by an intermittent tendency, and that quinia is becoming more and more useful as a febrifuge. As a confirmation both of the increase of intermittent and its connection with dams and mill-ponds, some striking facts are given concerning the recent epidemics in the neighborhood of New Haven.

Dr. Derby very forcibly exhibits the evils of tide-dams in and near large towns. These, intended to utilize as power the ebb and flow of the tide, through inlets and estuaries, cause the permanent retention of masses of water in places which otherwise would be completely emptied and filled twice daily. The basin thus formed, if near a city, receives sewage and becomes a foul and putrid sink. Many years ago large numbers of these tide-dams, with their mills, were built along the Massachusetts coast. Wherever these have become surrounded by a dense population, they have become offensive and dangerous nuisances.

A brief paper on "*Adulterations and Impurities of Food,*" by Henry B. Hill, gives these results: Fruits preserved in tin cans, though presenting traces of lead, copper, and tin, are practically harmless. Of vinegars, those sold as cider vinegars are almost always genuine, though sometimes watered, while the wine vinegars contain frequently more or less free sulphuric acid. Two samples were found to contain lead, one in terribly large amount, one-half of one per cent., equivalent to four and one-half grains of sugar of lead to the fluidounce. In these the poison was derived from leaden faucets, most wrongfully employed. Of seven samples of so-called coffee, sold in pound packages ready for use, one contained no coffee whatever. Four contained from fifty to seventy per cent. Peas, beans, and grain, chiefly wheat, entered largely, and chiccory was found in two packages.

A report is presented by Dr. F. E. Oliver, of Boston, upon the "*Use and Abuse of Opium.*" The paper is intended to direct attention to the employment of this drug as a stimulant and intoxicant. Two questions were addressed to the medical correspondents of the Board in the various towns of the State. The first as to the use of the drug for other purposes than relief of pain; the second, as to whether or not such use were increasing. Two-thirds of the one hundred and twenty-five physicians answering, report a greater or less amount of illegitimate consumption of opium in their towns. Many druggists, also, in Boston and in smaller places, state that large quantities of the narcotic are used without prescription. From the opinions of prominent importers and druggists in New York and Boston, Dr. Oliver estimates that at least one-half the opium imported is used as a stimulant. This estimate, moreover, reckons the amount used in quack remedies with that otherwise prescribed; and excludes from consideration the drug prepared for smoking. As to the extent to which the "opium habit" prevails, the information is, as might be expected, indefinite and various. Certainly its prevalence is sufficient to require the practitioner to remember its symptoms when he encounters forms of impaired health for which he cannot at once account.

As to the increase of this illicit consumption, the indications derived from custom-house returns are very startling. In view of the great increase in the use of milder and newer anodynes by physicians, and a clearer perception of the dangers of even a medicinal use of opium, we believe we are warranted in assuming that the legitimate consumption of the drug has not of late increased out of proportion to population. From 24,000 pounds in 1840, we have risen to an importation of 154,841 pounds in 1870. The writer goes on to state that the amount for the first half of 1871, is 123,000; and hence estimates 246,000 pounds for the entire year. The increase from 1840 to 1870 is sufficiently alarming; but that from 1870 to 1871 is, if correctly estimated, truly terrible. May it not be possible, however, that the arrivals of opium occur principally in the first six months? Dr. Oliver does not state whether he inquired as to this point. At all events, if our assumption be correct, that physicians are not prescribing more and more opium year by year, there must be a most serious extension of the "opium habit." No doubt it is true, as intimated by Mr. Hayes, Mass. State Assayer, that of late years opium enters more largely than ever into proprietary and family medicines, "cough mixtures, lotions, liniments," etc. It has been found too, he tells us, in liquors. But practically and in effect, this sort of use belongs rather to the illegitimate than to the proper medicinal use. One of the most diabolical manifestations of the sordid and heartless quackery which thrives in this age, is seen in the fact stated by Mr. Hayes, that some of the advertised "cures" for opium-eating contain potent doses of morphia. One of these, if taken as directed, would give six grains of sulphate of morphia daily. Truly the last state of the unfortunate believer in this "cure" would be worse than the first! Dr. Oliver directs attention to the abominable "cordials," "cholera cures," and "soothing-syrups," as not only destructive of infant life, but as very probably sowing the seeds of an irresistible craving for stimulants in after life. When we learn that a recent analysis of "Winslow's Soothing Syrup" gave one grain of morphia to the fluidounce, we are prepared to expect any amount and degree of cerebral or nervous disorder in the adult life of any child who might outlive its frequent administration.

Dr. Arthur H. Nichols contributes a very full and thorough consideration of the "*Effects on Health of the Use of Sewing-machines moved by Foot-power.*" Not long after the sewing-machine came into common use, rumours began to be current concerning its ill effects on the health of its workers. A number of physicians acting independently, and after investigations of varying extent and thoroughness, joined in the popular opinion, especially laying to the charge of the machine the production or aggravation of the diseases peculiar to women. Some went so far as to assert that paralytic and peculiar nervous lesions sometimes resulted. Dr. Nichols has very fully and carefully investigated the whole subject, both through questions addressed to the sanitary correspondents, and through an extended personal visitation and inquisition. His researches clearly indicate that continuous labour at machines moved by the ordinary treadle is too severe to be long pursued by women of delicate organization, without impairment of health. Such women, labouring often in close and crowded work-rooms, are liable to become the subjects of general debility. This, eventually, may manifest itself in many ways. But, moreover, there seems now to be no doubt of the fact that over-work at the sewing-machine treadle is peculiarly liable to cause hyperæmia, or congestion, of the pelvic organs. This, when we consider the constant action of the muscles connecting the thighs with the pelvis, especially the psoæ muscles, combined with a stooping posture, and perhaps tight corsets or waistbands, is not at all strange.

While what we have just stated seems fully supported by the evidence, it is equally true that in some work-rooms, exceptionally well ventilated, and where the peculiar character of the work allows frequent pauses in the motion, evil results may be hardly noticeable. Women of strong constitutions, too, and not disposed to uterine disease, may labour for years, even amid unfavourable surroundings, without apparent injury.

As to the use of the foot-moved machine in private families, where other household avocations occupy the greater part of the time, as a rule it may be confidently asserted that no ill results follow. The average American woman may safely use her machine at odd minutes or hours, for one, two, or three hours daily. Nevertheless, in cases of known weakness of the pelvic viscera, it will be the part of prudence to inquire pretty closely as to any connection between the machine and the occasional exacerbations of the malady.

The excessive severity of the labour required to run sewing-machines by foot-power, ten hours daily, is sufficiently well established to call for some remedy. Dr. Nichols, therefore, points out instances which prove that in large establishments, the introduction of steam-power is not only humane, but economical. Each worker, when assisted by steam-power, can do much more work daily, and preserve much greater health and strength. Where the operative works at home, or where steam-power is inaccessible, two improved treadles, the "Parsons" and the "Hall," are very highly commended. If it be true, as indicated by the few experiments given, that these so greatly lighten the labour as to wholly prevent the exhaustion caused by the old treadle, public opinion should demand their introduction into all workshops where foot-power is used, and upon all newly-built machines.

One of the first objects proposed to itself by the Board, on its organization in 1869, was the regulation and reformation of *slaughtering, and the processes connected with it.* The present report gives a full account of the investigations made, reforms attempted and results gained. In the report published in 1870, the unwholesome, wasteful, and every way objectionable character of existing slaughter-houses and their adjuncts, was clearly set forth. Large abattoirs were urgently recommended, which should include all improved facilities for utilizing offal in such manner as to prevent, or totally consume, all offensive vapours. The possibility of attaining the end desired was clearly shown, with the added advantage of important revenue to be derived from matters hitherto wasted. But, as is often the case with proposed reforms, the men who were to be most directly benefited were the most bitter in opposing any change. The killing for the Boston market was almost wholly done in private establishments clustered together in the suburban town of Brighton. Here population was largely increasing, and room was desired for residences for men doing business in the city. The cattle-pens, slaughter-houses and fat-rendering establishments, never scientifically constructed or managed, were becoming more and more intolerably offensive. Feeling the urgent need of speedy relief, the Board obtained the passage of an act authorizing the incorporation of a stock company which should have the right to build grand abattoirs, provided with all appliances for securing the best results, as to excellence of meat, utilization of refuse, humanity, and economy. These were to be constructed according to plans of the Board, and to be grouped together very near the site of the existing slaughter-houses. Seeking in every way to conciliate, and to remove all reasonable grounds of opposition, the Board hoped for the cordial coöperation of the butchers. Prejudice, however, was too strong; the butchers would not take stock, and the company could not organize. At the next session of the legislature these facts were stated and further legislation asked. The importance of the subject was recognized and an additional act passed. This empowered the Board to close all establishments which their judgment deemed inimical to "public health, or public comfort and convenience." Supported as it was by a rapidly strengthening public opinion, this act brought the butchers to their knees. They humbly begged to be allowed to remain in their old houses, pledging themselves to make all changes and improvements that the Board should suggest. Convinced of the necessity of a radical change, the Board firmly refused. Complaints were very soon made, and in Brighton alone, under the new law, some six or eight houses were closed by the Board. This firmness soon bore fruit. Conferences were held, and very soon the butchers were organized as a joint-stock company in the manner and under the restrictions prescribed by the original act. A large tract of land, between and closely adjoining the two great cattle-bearing railways, on the Charles River, and perfectly adapted to its object, is already purchased. Upon this will be erected buildings for the reception, feeding, killing and dressing of all cattle, sheep, and pigs needed to supply the city markets; and also all the varied establishments for preparing the hides, the fat, the blood, and all products whatsoever. Nothing will be wasted. It is believed that the entire system can and will be made entirely inoffensive. All will be constructed, and afterwards conducted, under the authoritative supervision of the Board. A rigid inspection will follow each beast from his arrival in the cattle-train till his dressed meat is exposed in the stalls and his other portions converted into valuable and innocuous manufactured products. Cruelty will be prevented; the consumers will be insured wholesome meat; and adjoining residents will be protected to the fullest possible extent from all the annoyances which have usually surrounded the slaughter-house. To this great central abattoir the Board have power to compel the removal of any person carrying on the slaughtering or allied trades within six miles of Faneuil Hall, if in their judgment the public good require it.

It would take too much space to set forth the improved processes by which the Board confidently expects to destroy bad odours, and to make from products formerly nearly valueless, a most valuable fertilizer. Suffice it to say that all the details seem to have been thoroughly worked out and arranged.

Thus bravely fought and nobly won was the battle of the Board against the butchers. Of its hard-earned victory it may well be proud. As to the people of Boston and its neighbourhood, those who know the terrible amount of unwholesome meat formerly sold, will realize that they have reason to be grateful for blessings even more substantial than relief from bad smells.

Dr. James C. White, who, though still a young man, is prominent as a dermatologist, contributes an elaborate article of some fifty pages upon "*Vegetable Parasites, and the Diseases caused by their Growth upon Man.*" After stating the fungous nature of these organisms, and alluding to the possibility of confounding their accidental with their causative presence, Dr. White names three common forms or types of skin disease which are undoubtedly produced by the action of the three fungous growths which accompany them. These are, favus, herpes tonsurans [in reality including all the various forms of ringworm], and pityriasis versicolor.

Each of these, our writer claims, is a perfectly distinct disease, having each its peculiar parasitic cause.

Under the second of these heads Dr. White describes a number of differently named eruptions which he believes to be identical in essence, and caused by one and the same fungus. Herpes tonsurans, tinea tonsurans, herpes circinatus, sycosis, eczema marginatum, "and the majority of the cases of parasitic disease of the nails, called onychomykosis, are all caused by the growth of one and the same fungus, hitherto generally entitled trichophyton tonsurans." The dissimilarity in the appearance of some of these forms of disease he attributes to the site and to the stage of growth. In regard to sycosis or mentagra, Dr. White points out the additional and important fact, that while the outward manifestations to which these names are applied are usually the result of aggravated and chronic ringworm, as proved by its being sometimes observed to commence like simple ringworm, and by its containing the same fungus, and by its giving rise, by inoculation, to simple ringworm, yet nevertheless very similar appearances occasionally result from a simple follicular inflammation wholly free from fungous agency. He believes also that the contradictory evidence of competent observers as to the etiology of alopecia areata is explainable in the same manner, or that one class of cases depends on simple atrophy of the hair-bulbs, and another on the presence of a parasitic fungus.

Dr. White makes a very forcible and conclusive argument for the specific and individual character of the favus fungus, against those writers who have striven to prove it to be only a development of the one causing ringworm, and against those who believe both growths to be but modifications of common "mould." The weight of reason and evidence, it seems to us, is strongly on his side.

Attention is directed to the frequency with which favus and ringworm may be observed on the lower animals, containing fungi identical with those which afflict the human subject. The doctor saw some reason to conjecture that the common mouse may be the original victim of the favus fungus and the means of its communication to man. Cats and dogs have been observed to contract the disease from diseased mice.

This very able and instructive paper closes with some practical remarks as to the modes of contracting, and of avoiding, these disgusting affections. The chief lesson drawn from Dr. W.'s knowledge and experience is that we should carefully avoid the barber's shop. Keeping private mugs, soap, brushes, and razors is not a trustworthy safeguard. The operator's hands, his strop, or possibly his aprons or towels, may convey the contagion. Dr. White has several times observed ringworm on the hands of barbers.

This essay is full of interesting observations and thorough discussions, much of which we have not even hinted at. The paper is well worthy to be published in a separate form as a permanent and valuable contribution to the literature of dermatology.

A brief essay on "*Smallpox*" in Massachusetts presents nothing worthy of especial note. Until 1870 the deaths from this disease had been below the average of former years. In 1870, 131 deaths occurred, nearly one-fourth in Holyoke. The number for 1871 had not yet been reported, but was undoubtedly larger than before, and principally in a very few towns. Circulars were sent out to all the towns, urging the necessity of thorough vaccination and revaccination, and asking information upon the subject.

The Board recommend that an existing law, requiring vaccination before two years of age, be amended to read, before six months. Also that local health officers have full power to remove and isolate cases of variola. The correspondence would seem to indicate that, as in other States, vaccination had been culpably neglected.

An essay on the "*Proper Provision for the Insane*" is contributed by Dr. Edward Jarvis. This gentleman is acknowledged to be the ablest statistician in the United States. Better than any other he has learned to distinguish between what figures really prove, and what they may be made to seem to prove. He has been interested in the study of insanity for many years. His practical familiarity with the disease, however, has not been derived from constant intercourse with the varied types to be found in the crowded wards of large hospitals; but rather from the small number of selected cases who have resided as invalid boarders in his private house.

It is a little difficult to understand the drift of the present article. In the outset Dr. Jarvis enlarges on the partial character of many cases of insanity, which he compares to broken limbs, or derangements of special organs, leaving the rest of the body unaffected. Only the parts which are diseased, he says, require to be rested or restrained. Existing hospitals for the insane, he intimates, carry restraint or forced rest, too far. He seems to think that by some changes in their structure and management the degree of restraint can be more nicely graduated and better adapted to the exact needs of particular cases. A number of cases are described in which patients afflicted with "mild" or "partial" insanity have recovered promptly on being sent to visit friends, or to board with judicious strangers, or even at home under a careful adaptation of their surroundings to their peculiar needs. Still, he frankly admits that for the vast majority, even of "mild" cases, the hospital is the only means of cure practically available. Only the exceptionally wealthy, or those having even more exceptionally discreet and self-sacrificing friends, can expect to find in private families the curative influences required. After some further expansion of his somewhat vague objections against the existing hospitals—which, yet, he acknowledges have done and are doing a noble work—he proposes as a remedy for all faults, the adoption of the "American cottage plan." This, as some of our readers will remember, consists of an ordinary hospital as a centre, having connected with it various detached buildings constructed like private dwellings. How it is thus expected to secure to poor and even pauper insane advantages which otherwise can scarcely be attained even by the most wealthy, we do not comprehend. In an article in the April number of this Journal we fully stated what seemed to us to be insuperable objections to this much-vaunted plan. Fully agreeing with Dr. Jarvis that there is room for improvement in our hospitals, we do not believe it is to be sought for in the direction which he has somewhat indistinctly indicated. Certainly, in the present state of public opinion, we cannot approve of any new departure in hospital construction which will increase the cost of these institutions. B. L. R.